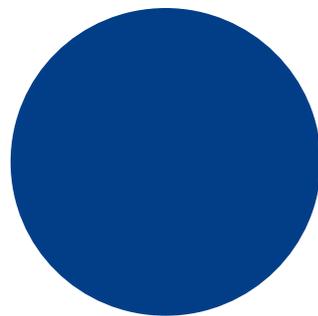
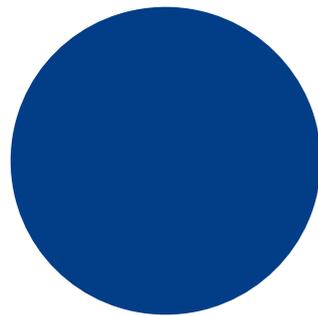


::: Bones

Milestone 312

Manual

www.bones.ch





Congratulations on purchasing Milestone 312.

Milestone 312 is a high-performance device in the smallest possible hardware design. We often compare it to another typical Swiss product. No, not chocolate, but the Swiss army knife. Milestone is small and portable, multifunctional and reliable.

Milestone 312 is specially designed for visually impaired and blind people to manage their professional and private lives. It can be customized to meet the needs of the user, who can create a simple, usable aid with some basic applications or create a fully activated, professional device with all the bells and whistles.

This manual contains a few graphics for users who have help from a sighted friend while learning how to use Milestone 312. But do not worry, these images are not necessary to understand the product, they just provide additional help.

If you are looking for manuals in other languages or newer editions, please visit our website at www.bones.ch. In addition, a TXT version of the manual is saved on the internal memory of your Milestone 312.

Enjoy your introduction to Milestone 312!

Content

1. Product overview	1
1.1. Applications of Milestone 312	1
1.1.1. Basic applications	1
1.1.2. Software extras	2
1.1.3. Hardware extras (Add-Ons)	2
1.2. Items included in delivery	2
2. M312 exterior	3
2.1. Visual layout	3
2.2. Layout description	3
2.2.1. The operating surface	3
2.2.2. The top side	3
2.2.3. The bottom side	4
2.2.4. The right side	4
2.3. Using the interfaces	4
2.3.1. Battery charging	4
2.3.2. Headphones	4
2.3.3. USB connection to the computer	4
2.3.4. External microphone and line-in	5
2.3.5. SD memory card	5
3. General operation	5
3.1. Global functions	5
3.1.1. On / Off (sleep mode)	5
3.1.2. Keyboard lock	5
3.1.3. Volume control	6
3.1.4. Reading rate control	6
3.1.5. Select application	6
3.1.6. Menu	6
3.1.7. Shortcut overview of global functions	8
3.2. Data management via computer	8
3.2.1. M312 drives on your computer	8
3.2.2. Creating a folder structure via computer	8
3.2.3. Transferring or deleting files with your computer	9
4. Basic applications	11
4.1. Audio	11
4.1.1. General functions in Audio	11
4.1.2. Playing a music file	14
4.1.3. Playing a text file	15
4.1.4. Recorder	15
4.1.5. Shortcut overview of Audio	17
4.2. Books	18
4.2.1. Starting and pausing a book	18
4.2.2. Navigating in a book	18
4.2.3. Selecting a book	20
4.2.4. Creating and erasing a bookmark	20
4.2.5. Shortcut overview of Books	20
4.3. Alarm	21
4.3.1. Setting the alarm	21
4.3.2. Turning off the alarm	21
4.3.3. Requesting time and date	21
4.3.4. Setting the time and date	22
4.3.5. Shortcut overview of Alarm	22

5. Software extras	23
5.1. Speakout	23
5.1.1. Associating a voice message with a tag	23
5.1.2. Shortcut overview of Speakout	23
5.2. Radio	24
5.2.1. Locating a radio station	24
5.2.2. Saving a radio station and labeling it	24
5.2.3. Recording from Radio	24
5.2.4. Shortcut overview of Radio	25
5.3. Agenda	25
5.3.1. Getting day and time information	25
5.3.2. Configuring and managing events	25
5.3.3. Previewing and creating an event	27
5.3.4. Erasing an event	27
5.3.5. Stopping reminder	28
5.3.6. Example of creating an event	28
5.3.7. Shortcut overview of Agenda	28
6. Further information	29
6.1. Technical data	29
6.2. Advice	29
6.2.1. SD memory cards	29
6.2.2. Customize via CONFIG MILESTONE.TXT	29
6.2.3. Protecting Milestone	30
6.2.4. Creating a data backup	30
6.2.5. Nothing works anymore	30
6.3. Service and support	30
6.3.1. General information	30
6.3.2. Software updates	30
6.4. About Bones AG	31

1. Product overview

This chapter introduces Milestone 312's applications. In addition, you will find a short checklist of what is included in your box.

1.1. Applications of Milestone 312

Milestone 312 (M312) is a multifunctional device that can be customized according to your wishes. In its basic version, Milestone 312 already covers broad functionality. However, there are additional applications that can be purchased and activated at your discretion.

1.1.1. Basic applications

The following list contains the applications that are included when you buy the basic version of Milestone 312.

Application	Description
Audio	<p>Audio is a multi-purpose application with the following range of functions:</p> <p>Music player: With its high quality playback, Milestone 312 is designed for optimal music enjoyment. It plays MP3, AAC, WMA, WAV and more formats.</p> <p>Text to speech player: This application enables you to read text files in TXT and DOC formats. You can choose between different languages and voices.</p> <p>Recorder: Clear, professional voice recordings are Milestone's specialty. Even in noisy environments such as trains and airplanes, the recordings sound faultless. Milestone's clear and powerful built-in speaker offers one-of-a-kind playback quality for portable devices. In addition to the internal microphone, you have the option to connect external microphones for high-end stereo recordings.</p> <p>Audio allows you to adjust the reading rate for all kind of files. In addition, it allows you to create whatever folder structure suits you best.</p>
Books	<p>Books is a reader for DAISY and other navigable electronic books. It allows you to take advantage of all the navigation elements available, as well as customize the reading rate, set book marks and much more.</p>
Alarm	<p>Alarm is an easy-to-use alarm clock. Besides its wake-up function, it includes a timer and you can request current time and date.</p>

1.1.2. Software extras

The following software extras are available in order to customize your Milestone 312.

Application	Description
Radio	Radio is a stereo FM tuner that integrates automatic frequency searching, frequency saving, direct frequency input and radio recording.
Speakout	With the RFID reader “Speakout” you can identify objects. You do so by tagging the object (CDs, medicines, clothes) with a RFID tag. Scan this tag with Milestone 312 and record a voice description of the object. Next time you scan the object, Milestone 312 will automatically play this message.
Agenda	Agenda is a powerful appointment calendar to organize your daily life. In addition to standard calendar features, Agenda can be used to time special events such as the recording of radio shows at particular times.

1.1.3. Hardware extras (Add-Ons)

Add-Ons allow you to receive applications you usually only get in a specialized stand-alone-gadget. They are designed to seamlessly integrate with your Milestone 312. Simply snap them on, and start using your new application.

An example of such an Add-On is Fame. With this optical color reader you are able to identify colors. For example, you can identify the color of the clothes in your wardrobe and combine a matching outfit. In addition to identifying and comparing colors, Fame is able to detect luminance.

Further Add-Ons are the Milestone CD Drive and the barcode reader “Woodscan”.

For more information about software extras and Add-Ons please ask your dealer or go to www.bones.ch.

1.2. Items included in delivery

The following items are included in your Milestone 312 box:

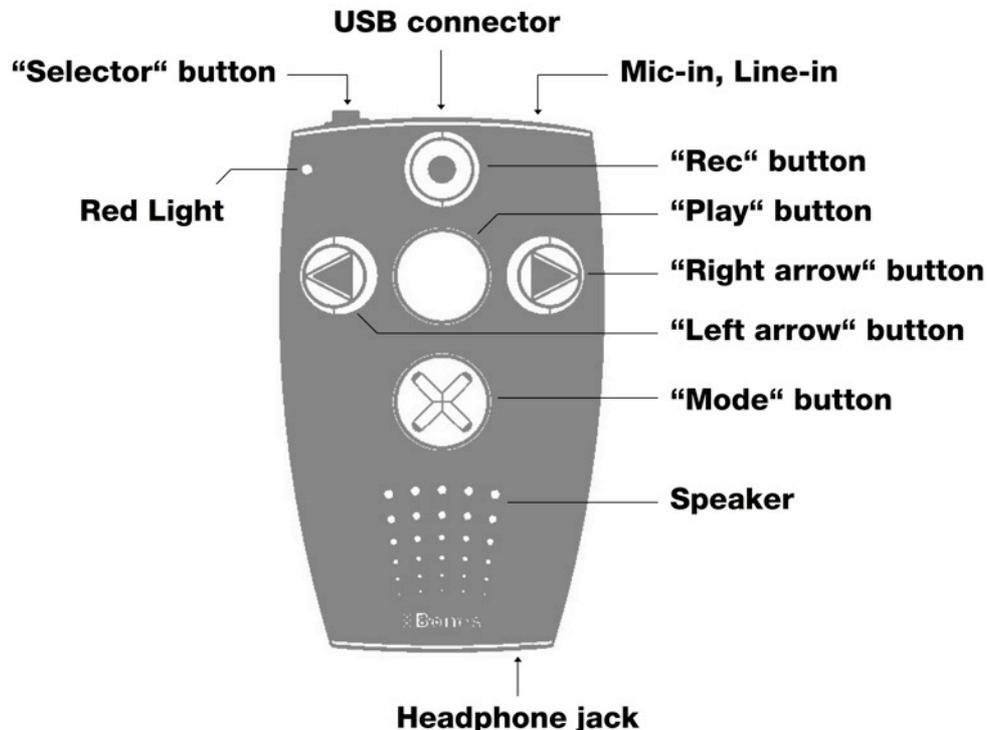
- *Milestone 312 (main device)*
- *USB 2.0 Hi-Speed cable*
- *Charger*
- *Lanyard (neck strap)*
- *Case*
- *SD memory card*
- *Manual*
- *Sample Speakout RFID tags*

Should one of these items be missing, please contact with your dealer.

2. M312 exterior

This chapter explains the device's exterior, including buttons, connectors, and other tactile markers.

2.1. Visual layout



2.2. Layout description

2.2.1. The operating surface

Hold your Milestone in front of you with the buttons facing up. You will find five buttons on its surface - a big circular button in the center surrounded by four buttons arranged in a cross shape. The round recessed button in the middle is the only one with a smooth surface devoid of tactile markers. This is the "Play" button. Directly below the "Play" button you will find the "Mode" button. This button is marked with a tactile X. Directly above the "Play" button is the "Rec" button. This button is marked with a tactile circle. To the left of the central "Play" button is the "Left arrow" button. You can recognize it by the tactile arrow oriented toward the left. To the right of the "Play" button is the "Right arrow" button, marked with a tactile arrow pointing toward the right. The buttons described in this section are used like a directional pad in the operation of the device.

Below this arrangement of buttons you can feel the speaker and in the top left corner of the device there is a red operator light located.

2.2.2. The top side

The top side contains the sixth and last push button. It is a small round button at the top left corner of the device. This is the "Selector" button. To the right of the "Selector" button is a large opening - this is the USB connector. In addition to transferring data from a computer, you can use the USB connector to charge your device's battery. At the right

edge of the top side you will find a small round connector. It is for external microphones and line-in.

2.2.3. The bottom side

The bottom side only contains the headphone connector.

2.2.4. The right side

On the right side of the device, you will find the SD memory card slot.

2.3. Using the interfaces

Milestone 312 has several interfaces for connecting peripheral equipment, such as headphones, external microphones, and SD cards. The following descriptions give you an overview of all interfaces and their uses.

2.3.1. Battery charging

Connect the provided charger to a power outlet. Connect the other end of the charger cable to Milestone's mini-USB connector, located in the middle of the top side. A deep beep indicates a correct connection, and the LED light on the operator surface begins to blink every three seconds. Maximum charging time is 3 hours. Please be aware that a connection to a computer via a USB cable also recharges the battery as long as the computer remains on. You can find out the power level remaining in your battery through "Information Service". Please see the relevant section below for details.

Milestone 312 is equipped with a powerful rechargeable lithium polymer battery. Maximum playback duration is over 15 hours. Maximize playback time by listening to music and books over headphones at medium volume and using standard reading speed. Please be aware that using the integrated speaker requires more energy and thus reduces playback time. The same applies to high reading rates, high volume and reading of text files.

2.3.2. Headphones

If you do not want to listen to Milestone 312 over the external speaker, simply plug in any headphones to the standard 3.5 mm headphone input, located on the right bottom side of the Milestone. The sound will then switch from the speaker to the headphones.

Attention: Please note that the Alarm application will use the external speaker, even if headphones are connected.

2.3.3. USB connection to the computer

Use the provided USB cable to connect Milestone 312 to a computer. Plug the smaller end of the cable into the mini-USB connector, which is located in the center of the top side of your Milestone 312. The bigger end connects to a standard USB connector on your computer. Activation of the connection is signaled with the spoken message "Connection activated" on your Milestone. Now you can transfer files such as books, music files, voice messages, text files and more. More information please find under "Data management via computer". The USB 2.0 Hi-Speed port allows you quick transfer times, even for large data files. As an added benefit, your Milestone's battery is being charged through an active USB connection.

Attention: Please note that Milestone's keyboard is locked while in USB connection mode.

2.3.4. External microphone and line-in

There is a 3.5 mm jack on the right-hand side of the front edge. It can be used for line-in recording with stereo audio cables with a 3.5 mm jack or to connect external microphones. More information on external microphones and line-in recording can be found under “Recorder”.

2.3.5. SD memory card

Milestone 312 uses SD and SDHC memory cards to store books and other files. SD stands for “Secure Digital”, which denotes a world-wide standard for memory cards. These memory cards are available in different memory capacities up to 32 GB. We recommend SD cards from SanDisk, Kingston, Transcend and Toshiba for trouble-free usage. You can insert an SD memory cards into the longish slot on the right side of Milestone 312. To insert the card press until it locks in. Please do not use excessive force. To remove the card, gently push on the card and it will pop out of the SD-slot.

Attention: If you have problems with inserting the SD memory card make sure the card is adjusted correctly. The card has a ribbed side. This is where the contacts are. In addition one corner is notched. When inserting the card make sure the ribbed side is in front and the notched corner is facing down and towards you.

3. General operation

This chapter covers the general operation of the Milestone 312 (M312) and explains how to use it in combination with a computer.

3.1. Global functions

The following shortcuts are used to activate global functions and settings. These work regardless of which application is active.

3.1.1. On / Off (sleep mode)

Milestone 312 has no physical on / off switch. Press “Play” to start the Milestone 312. After ten minutes of inactivity, the device will automatically go into sleep mode to conserve battery life. The device will reactivate upon pressing the middle “Play” button. After reactivation the device returns to the last active application and position.

Hint: If your Milestone does not wake up by pressing the “Play” button, there are three possibilities to check: The keyboard is locked, the sound volume is on the lowest level or the battery is empty.

3.1.2. Keyboard lock

When keyboard lock is on, all key presses will be ignored, except the one that turns it off again. To activate the keyboard lock, push the “Mode” button first, keep it pressed while pressing the “Rec” button quickly, and finally let go of the “Mode” button again. When keyboard lock is activated you will hear the message “Keyboard locked”. To unlock the keyboard, simply press the same combination of buttons again. The device will acknowledge this with the message “Keyboard active”.

3.1.3. Volume control

There are 16 volume levels on the Milestone 312. To increase the volume by one level, hold down the “Mode” button and then in addition press the “Right arrow” button. To decrease the volume by one level press “Left arrow” while holding down the “Mode” button. If you want to change by more than one level, simply keep the “Mode” button pressed and hit the arrow button once for each volume level.

If you change volume during playback you just hear the volume increasing or decreasing. If the volume is changed during paused mode, Milestone 312 announces “Volume up” or “Volume down”. Reaching the maximum and minimum levels is indicated by a beep.

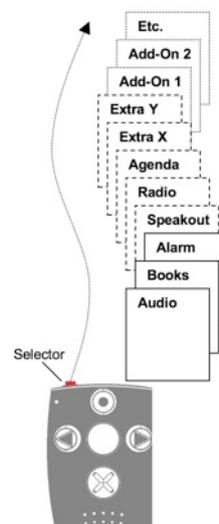
3.1.4. Reading rate control

To increase reading rate by one level (10%), hold down the “Selector” button and then in addition press the “Right arrow”. To decrease the reading rate use the “Selector” button with the “Left arrow”. Adjustment of reading rate is only possible while playback of a file.

The range of reading rates extends from 50% (half speed) to 200% (double speed). A deep, short beep signalizes the original speed level. Further speed selections can be made in the menu.

3.1.5. Select application

The “Selector” button, on the Milestone 312 will cycle through the available applications. The applications are announced by name after the “Selector” button is pressed.



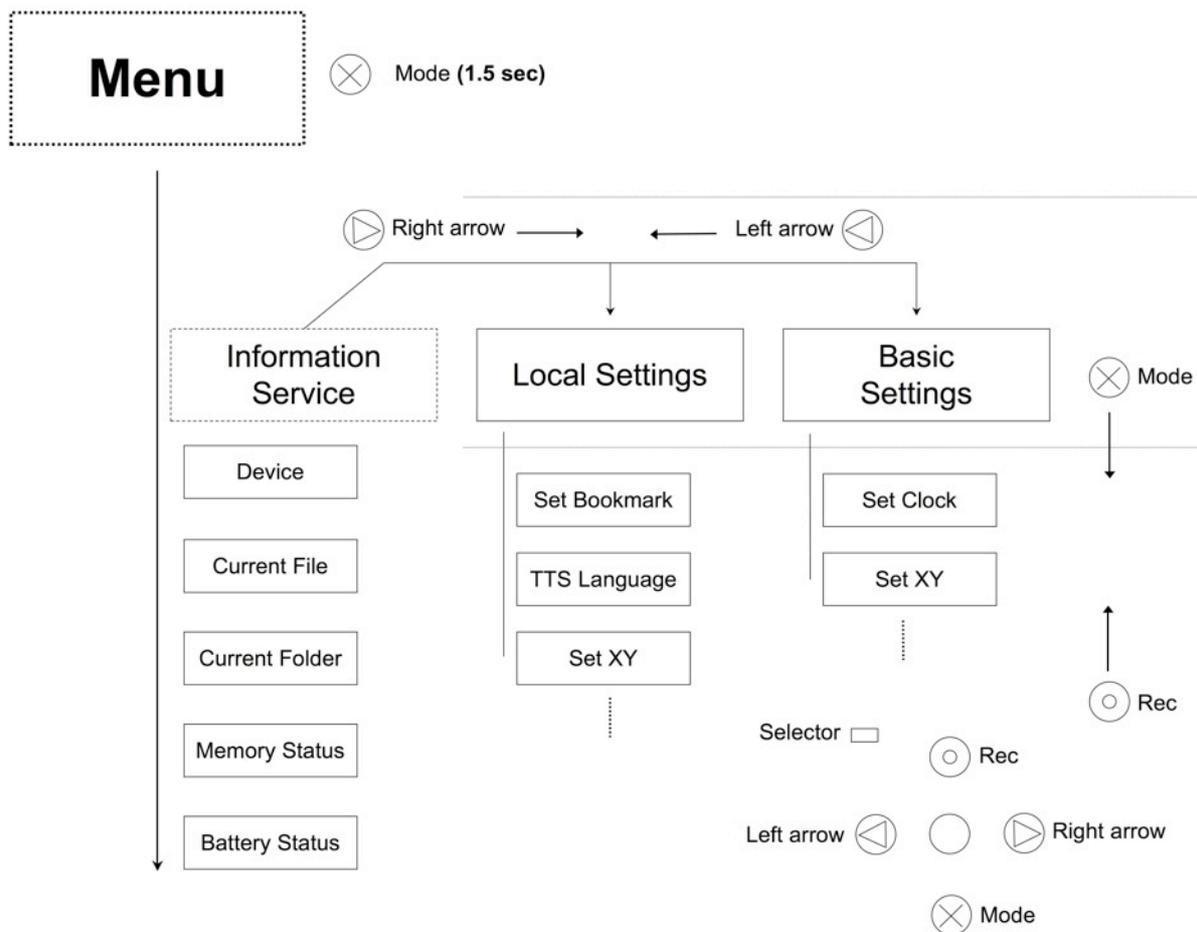
3.1.6. Menu

The menu provides information for the active application and allows you to access and adjust many settings. It is arranged in 3 parallel lists. To reach the menu press “Mode” and hold it down for at least 1.5 seconds or until Milestone starts speaking. You will be placed in the “Information Service”, which gives out information relevant to the active application. To access the next menu bar “Local Settings”, press the “Right arrow”. Pressing the “Right arrow” again will place you in the “Basic Settings”.

You can use the “Left arrow” to move back.

Navigation in the menu is pretty simple. Imagine the 4 press-buttons around the “Play” button as a directional pad. The “Rec” button moves up to the previous item in the active menu while the “Mode” button moves down to the next item. Using the arrow buttons will move you horizontally.

To exit the menu simply push the “Selector” button or wait for 10 seconds. The Milestone will exit the menu automatically after 10 seconds of inactivity.



3.1.6.1. Information Service

“Information Service” provides information for the currently active application and it announces the battery status. Different applications will have different information and thus the Information Service menu will look different, depending on which application is active. If you want to repeat information for the current item press “Rec” to go up. Press “Mode” to go down. To stop the Information Service press “Selector” once or wait until all the information has been announced.

3.1.6.2. Local Settings

The Local Settings menu allows you to modify application settings. As with Information Service the Local Settings will vary depending on which application is currently active. For instance, the Local Settings for the Audio application contains settings such as random playback, reading rate of text files playback et cetera.

You can go down in the list of settings with “Mode” until you reach the last setting. To go up again use “Rec”. If you have reached a setting you would like to adjust, press “Right arrow” or “Left arrow” to choose between different parameters. The adjustments are saved automatically. To leave the menu just press “Selector”.

3.1.6.3. Basic Settings

Basic Settings are global parameters that will be adjusted for all applications on the Milestone. For example, adjust date and time for the clock and modify the speed of all voice prompts.

You can go down in the list of settings with “Mode” until you reach the last setting. Use “Rec” to go up again. If you have reached a setting you would like to adjust, press “Right

arrow” or “Left arrow” to choose between different parameters. The adjustments are saved automatically. To leave the menu just press “Selector”.

Attention: You can adjust more advanced settings via computer by modifying Milestone’s configuration file. This will be covered in a section called “Customize via CONFIG MILESTONE.TXT” later in this manual.

3.1.7. Shortcut overview of global functions

Function	Operation	Acoustic feedback
Switch on Milestone 312	“Play”	Application
Select application	“Selector”	Application
Increase volume	“Mode” + “Right arrow”	“Volume up” (in paused mode)
Decrease volume	“Mode” + “Left arrow”	“Volume down” (in paused mode)
Change reading rate (during playback)	“Selector” + “Right” or “Left arrow”	None. Speed simply changes.
Lock the keyboard	“Mode” + “Rec”	“Keyboard locked”
Unlock the keyboard	“Mode” + “Rec”	“Keyboard active”
Open menu	“Mode” for 1.5 seconds	Information Service starts
Leave menu	“Selector”	Short Beep

3.2. Data management via computer

Before you can listen to your music, text files or electronic books, you have to copy the content to Milestone’s SD card or internal memory. You can transfer the files from your computer to Milestone 312 via the provided USB cable and build your own folder structure to organize your files. There is no restriction on the file- or folder names.

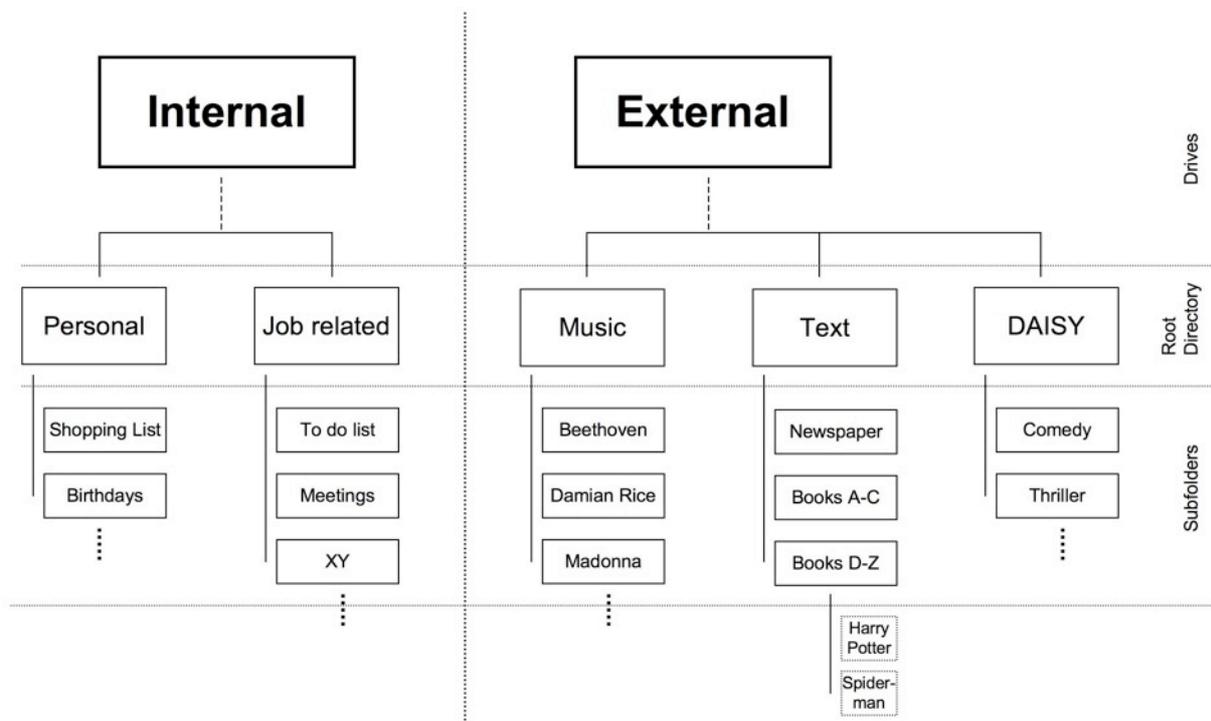
3.2.1. M312 drives on your computer

Connect the Milestone 312 to your computer via the provided USB cable, as described in section “USB connection to the computer” in this manual. Milestone appears as additional drive on your computer. The “M312” drive is the 1 GB internal memory of the Milestone 312, 740 MB of which are accessible to the user. If another drive appears, it refers to the SD memory card inserted into your Milestone 312. This external memory will only appear in the drives list if an SD card is actually inserted.

When you have finished the transfer, make sure to remove Milestone 312 and the SD memory card properly from your computer.

3.2.2. Creating a folder structure via computer

You can create a structure of folders and subfolders to file your data, either directly on the Milestone’s internal memory or on the SD memory card you use with the Milestone 312. Milestone 312 places no restriction on folder names and structures that you create. Please be aware that your Milestone 312 may already have some pre-installed folders. These folders are just a suggestion for a possible folder structure and can be deleted or customized to best suit your naming system. You create, name, or delete folders through the operating system of your computer.



In the included graphic, there is an example of a folder structure. There are three different hierarchical types. The highest is “Drives”. It includes the internal memory and external memory which appear when Milestone 312 with an inserted SD memory card is connected to a computer. When you open one of the drives you reach the second level, the “Root Directory”. Therein you create your main folders as for example folder “Music”, folder “Books” et cetera. The last hierarchy type is “Subfolders”. These are the folders inside the main folders. The subfolders can contain further subfolders according to the user’s requirements.

It is recommended that you provide descriptive names when creating your folders and subfolders, as this will help you navigate the data on the Milestone at a later date.

When you navigate your folder structure on the Milestone, all folder and file names will be announced as you browse through them.

Attention: Some applications automatically create their own folders. For example Radio creates the folder “Radio”.

3.2.3. Transferring or deleting files with your computer

3.2.3.1. Transferring via computer

You can transfer many different types of files to Milestone 312. For example text files, music files, book files et cetera. Just copy the file from your computer and paste it into the preferred folder or root directory of Milestone 312. Make sure that the available memory capacity on your SD card or internal memory of Milestone 312 at least covers the size of the data you wish to place there.

In general, transferring to Milestone 312 is pretty simple. However, please keep the following tips in mind:

Transfer large data files to an external memory card:

A large music or book collection requires a lot of disk space. Since Milestone 312 supports SD and SDHC memory cards with memory capacity up to 32 GB, it is better to use these

cards for such files and reserve the limited internal memory for voice recordings and other applications requiring internal storage capacity.

Extract and convert Music CDs to a compressed file format:

Milestones Audio application plays files in the following format MP3, AAC, WMA, WAV, MP4, M4A, M4V and text files in TXT and DOC. These files can be copied directly to the Milestone 312. However, a commercial music album on a CD has to be converted into one of the aforementioned formats before you can play it with Milestone 312. When you insert a CD into your computer, the music files on that CD are in a format that the Milestone is unable to play directly. Use software such as CDex, Windows Media Player or iTunes to extract the files into a format that the Milestone can work with. The WAV files are full quality music files, but they are also 6 to 8 times larger than an MP3 version of the same song, with very little difference in audio quality. Therefore, you can fit a lot more material on your Milestone by compressing your music into MP3 or other supported formats before transferring it to your player.

Hint: With the Milestone CD Drive you can easily transfer CDs directly to Milestone without the need of a computer.

Store a book in an own folder:

Milestone's application "Books" reads books in the following formats: DAISY 2.02, DAISY 3.0, EPUB, Audible AA and AAX. Please store each book in a separate folder. This helps you to organize your books properly because a book often contains up to hundreds or even thousands of files.

3.2.3.2. Deleting files and folders via computer

The Milestone 312 offers ways to erase files, but often it is quicker to delete files and folders via a computer connection. Use standard operating system functions to delete files and folders from the Milestone, as it will behave just like any other computer drive.

Attention: If you erase files on your Milestone 312 via a Mac computer, empty the trash bin afterwards. Otherwise the files are not really removed, only their links are deleted.

When you have finished transferring data, disconnect Milestone 312 properly from your computer.

4. Basic applications

This chapter describes how to use the 3 standard applications included with the basic version of Milestone 312. The main application “Audio” combines 3 functionalities: music playback, text reading and voice recording. The second application “Books” opens up the world of digital talking books. It supports formats such as DAISY, Audible and more. The third application “Alarm” is an easy to use alarm clock, which makes sure that you get up every morning on time.

4.1. Audio

The Audio application is a multi-purpose playback, reading and recording application, compatible with a broad range of usable file formats. In Audio you can listen to your music collection or use the built-in text-to-speech (TTS) voices to read text files you have copied to your Milestone. In addition to playback, Audio provides high quality, convenient recording functionality. You can record your own voice messages with the integrated microphone or create high quality recordings of concerts and meetings by using an external microphone. All the files used in Audio can be arranged in a fully configurable and accessible folder structure just like with a computer. The folder structure can be created beforehand using a computer via USB connection.

4.1.1. General functions in Audio

The following functions are available in the Audio application, make sure it is the active application by using the “Selector” button until you hear the word “Audio”.

4.1.1.1. Folder navigation in Audio

Audio provides an intuitive way to navigate the folder structures on the internal memory or on the SD memory card. Imagine the 4 buttons around the “Play” button as a directional pad. With “Rec” you go up one level. With “Mode” you reach the next lower level. So the vertical navigation you do with “Rec” and “Mode”. The horizontal navigation in one level or folder you do with the two arrow buttons.

Example: Let us assume you have an SD card with two folders, “Music” and “Text” inserted in your Milestone. In the folder “Music” you find the subfolders “Rock”, “Pop” and “Classic”. In “Text” you find “Newspapers” and “Love stories”. When Milestone is activated and located in the application “Audio”, press “Rec” until you hear a short beep and Milestone 312 says either “Internal memory” or “External memory”. “Internal memory” is the 1 GB internal memory of your Milestone 312 and “External memory” refers to the SD card. Each time you press “Rec” again you change the memory and automatically enter its root directory. If you are in the internal memory, press “Rec” to switch to the SD card. Now you are located in the SD card’s root directory, and can use the arrow buttons to move through the available files and folders, in this case only the folders “Music” and “Text”. Select “Text” and press the “Mode” button to open that folder. You will hear a tone sequence “high pitched - low pitched”. This tone sequence indicates that you entered a folder and, therefore, moved down one level in the folder hierarchy. Milestone will read the name of the first subfolder. In this case “Love Stories” since Milestone reads folders and files alphabetically. Assuming we want to read a text file located in the “Love stories” folder, simply press the “Mode” button to open that folder. Use the arrow buttons to select the desired text file and then press “Play” to open it. Milestone will start reading automatically.

Hint: When you have a large amount of files or folders in a root directory or in a folder, you have the possibility to jump directly to the last or the first file or folder at that level. While

holding down the “Right arrow”, press “Play” to reach the last file or folder. While holding down the “Left arrow”, press “Play” to jump to the first file.

4.1.1.2. Erasing files and folders on Milestone 312

Milestone 312 allows you to erase files and folders directly without a connection to the computer. This can be done in one of the following 3 ways:

- Erasing one file:
Play the file you would like to erase. While the message is playing, hold down the “Mode” button and briefly press “Play”. The file will be erased when you let go of the buttons. A message may be erased as well up to 10 seconds after the replay has stopped.
- Erasing files in one direction:
Pressing the triple-button combination “Mode”, “Play” and “Right arrow” or “Mode”, “Play” and “Left arrow” will erase all files in the current folder in the corresponding direction, including the file the cursor is on when you push the buttons. The triple-button combination needs to be pressed for two seconds. A long beep signals the start of erasing. The erasing sound signals the end of erasing.

Attention: This function is only available in paused mode.

- Erasing a folder:
Select the folder you would like to erase. While holding down “Mode”, press the “Play” button. After 3 seconds confirm erasing by pressing “Play” again. Finally, let go of the “Mode” button. Please note that deleting an extensive folder may take a couple of seconds. This process is signaled by a ticking sound before the final erase sound appears.

4.1.1.3. Creating shortcuts for favorite folders

There will be certain folders you would like to visit often, for instance your shopping list folder or your favorite music folder. You could always use the regular navigation to find them or you can create up to 5 shortcuts that allow you to jump directly to the folder you want with a single key combination.

Do this by first locating, and opening the folder with “Mode”. Once you are inside that folder you can set a shortcut by pressing and holding down the “Selector” button and then one of the 5 buttons on the front of the Milestone. Hold both buttons down for 3 seconds or until you hear the Milestone announcing the folder location.

Now you can jump to this folder from anywhere, simply hold down “Selector” plus the corresponding front button briefly and you will find yourself there.

Attention: It is possible that your Milestone shortcuts are preconfigured to one of the basic 5 folders on the internal memory. Use the technique above to reassign the shortcuts to whatever folder you want.

4.1.1.4. Voice labeling of folders

Instead of reading the name of a folder with Milestone’s text to speech function, you can create a custom voice label for that folder on Milestone 312. To start recording a folder name enter the appropriate folder with “Mode”. Push and hold “Rec” and after a click hold down “Mode” as well. Milestone says “folder”, afterwards speak the new voice label. The recording will be ended when you release both buttons and you will hear the sound sequence “high pitched-low pitched”. Please note that very short recordings are rejected. The new voice label is announced the next time you reach this folder. A recorded folder

name can be overwritten at any time by recording a new one. To completely remove a self recorded folder name, delete the file "FOLDER.NAM" within the given folder via the computer.

Hint: If you want to voice label an SD memory card you can do that with the same procedure. Go to the highest possible level and select "External memory". Now proceed the same way as when voice labeling a normal folder. From now on, the new voice label appears when you plug in the SD memory card into Milestone 312.

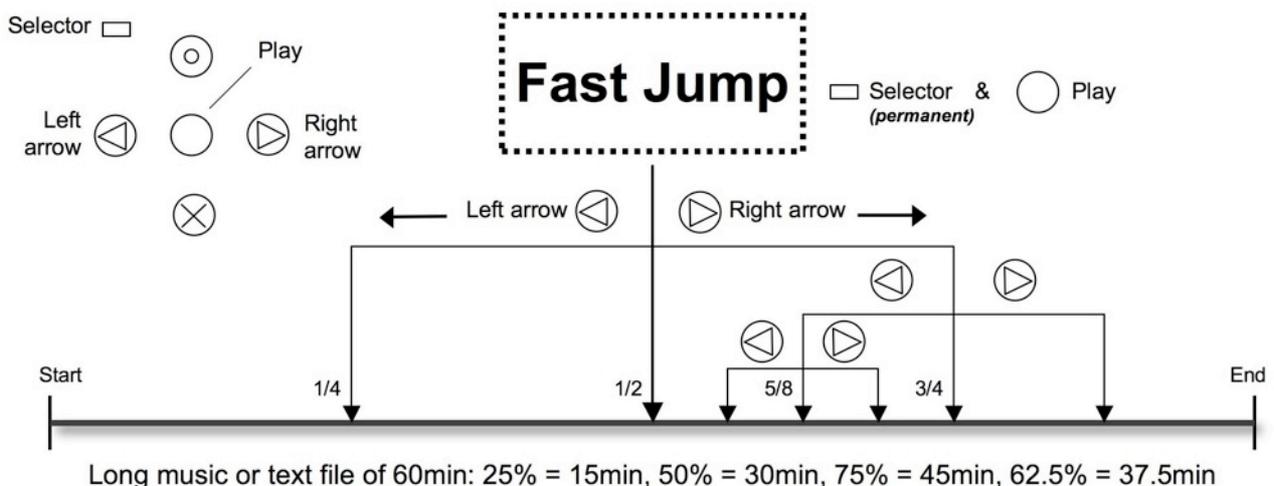
Attention: When a folder has a written name and a recorded name, the recorded name will be announced.

4.1.1.5. Fast Jump

Fast Jump is a function to quickly navigate inside a file. This can be particularly useful when files are very large. It is available in the Audio application during the playback of a file. To start Fast Jump mode, push and hold "Selector" and then in addition push "Play". The Milestone 312 will jump into the middle of the current file. Keep pressing the "Selector" button to further specify your entry point. With the "Left arrow" you jump to the middle of the first half, which is 25% of the file length. With the "Right arrow" you jump to the middle of the second half, which is 75% of the file length. Assuming that you pressed "Right arrow" and you are now at 75%, press "Left arrow". You reach 62,5%, which is the middle of 50% and 75%. You can repeat this procedure until you have reached your preferred point of entry. After every jump in the Fast Jump mode the reading starts immediately to inform you of your position within the file.

If you made a mistake and you would like to start over, pushing "Play" will put you back in the middle of the file. But be aware that you need to keep holding "Selector" during the whole process. Releasing "Selector" exits Fast Jump mode and continues the current position.

Attention: Please be aware that Fast Jump only works during playback of a file. If no file is played, the combination "Selector" and "Play" is used for directly entering a folder as described under "Creating shortcuts for favorite folders".



4.1.1.6. Creating and erasing an Audiomark

To set an Audiomark press “Rec” for 2 seconds during playback. Milestone 312 announces “Audiomark set” and the number of the Audiomark. You can place an Audiomark in any file playable in Audio.

To list, or erase, your Audiomarks go to Local Settings. There you find the setting “Audiomarks” in which you can browse through all marks by using the arrow buttons. Each Audiomark contains a number, file information and a preview of some seconds.

Once you have located the Audiomark you like to start from, press “Play” or “Selector” to leave the Local Settings. Now you can restart playback from the selected Audiomark simply by pressing “Play”. You can set 12 Audiomarks in total.

To erase a selected Audiomark in the Local Settings, push and hold “Mode” and then in addition press “Play”.

New Audiomarks are always placed at the lowest available position. That means; if you have Audiomarks 1 to 7 and you delete number 2, next time a newly created Audiomark receives position 2.

4.1.2. Playing a music file

Audio contains a high quality music player that plays the following music formats:

Format	Description
MP3	Most popular compressed digital audio file.
AAC	Compressed digital audio file from Apple’s iTunes.
WMA	Windows Media Audio: Compressed digital audio file used by Windows Media Player.
WAV	Uncompressed digital audio file, quite large in size, up to 10 times larger than a corresponding MP3 file.
MP4	Standard video and audio container: Played by Milestone if using AAC audio stream. Please note that such a file needs initialization time.
M4A	Compressed digital audio format from Apple’s iTunes. E.g. music and pod-casts. (Apple Lossless is not supported)
M4V	Digital video format from Apple’s iTunes. Milestone plays the audio stream of the video. Please note that such a file needs initialization time.

To listen to a music file please make sure to be located in the application “Audio”. Select a music file as described under “Folder navigation in Audio”. Music files automatically start playing if you select them. Press “Play” in the middle of the keyboard to pause the music file. If you press “Play” again playback will continue. With the arrow buttons you can jump from one file to another. In order to fast-forward or rewind within a track, push and hold the “Right arrow” or “Left arrow”. The scrolling rate will increase, the longer you hold the button down. Playback will resume at the new location once you release the arrow button.

Hint: The Local Settings of the Audio application have the option for random playback. Open the Local Settings menu, scroll down to “Random playback” and use the “Right arrow” button to select “yes”. Note that the Milestone will create a file named RANDOM.YES inside the current folder. Exit by waiting 10 seconds or pressing the “Selector” button.

Press “Play” to start playback inside the folder that includes RANDOM.YES. Milestone will

play back randomly all files of this folder and its subfolders. Please note that when you pause playback again and Milestone is located in a subfolder without RANDOM.YES playback will resume to normal playback mode.

4.1.3. Playing a text file

The Audio application provides text to speech playback to read the following text files:

Format	Description
TXT	Plain text file stored in your language specific code-page: 1250, 1251, 1252, 1253, 1254 or 1256). Unicode files are not supported.
DOC	Standard Microsoft Office Word document. (DOCX is not supported)

Milestone 312 uses the popular text to speech engine from Acapela, which supports multiple languages and voices.

Be aware that when you select a text file, you hear the name of the file first. By pushing “Play” you start the reading of the file. Opening a DOC file for the first time may take some seconds to convert the file. A ticking sound signalizes that process.

Text file playback is similar to music playback. You can jump to the next and previous file with the arrow buttons and use the pause function with “Play”. By pushing and holding down the arrow buttons you can fast-forward and rewind through files by jumping by predefined intervals. These intervals can be specified by pressing “Rec” or “Mode” during the playback of a file. You can choose between “Screen” (which is around 25 lines), “Paragraph” or “Sentence”. When you hold down an arrow button you hear a click, which means that you have jumped by one such interval. If you keep pressing the arrow button longer you will keep hearing clicks as you keep skipping through the file using the interval you specified.

The Milestone 312 comes with multiple languages and voices preinstalled. You can select the language of the text to speech reading simply by opening the Local Settings of the Audio application and go to the setting “Language”. Here you can use the arrow buttons to select the language or voice you want. In addition to changing the text reading language, the Milestone will switch the prompts to match the active language.

Still more languages and voices are available for the Milestone 312. If you need an additional language, please visit the support section of www.bones.ch.

Attention: The Audio application provides an independent reading rate for text files in addition to the general Audio reading rate for music and voice records. You can adjust the reading rate while playback of a text file as described under “Reading rate control” or through the Local Settings of the Audio application.

4.1.4. Recorder

The Audio application contains a voice recorder, which allows you to record voice messages with the integrated microphone. You can use it to create shopping and to-do lists, audio interviews, record addresses and phone numbers et cetera. For high quality recordings you can connect an external microphone, and take advantage of the built-in recording settings to achieve optimal results.

4.1.4.1. Recording a short voice message

To record a short voice message, push “Rec” and hold it while speaking. A short click signalizes that the recording has started. To stop recording simply release “Rec” again.

4.1.4.2. Recording a continuous voice message

As an alternative to having to keep the “Rec” button pressed, you can start a continuous recording. Push and hold the “Rec” button and then in addition press “Play” after you hear the short click. Milestone 312 will acknowledge the start of the continuous recording with the sound sequence “low pitched-high pitched”. To terminate the continuous recording, press the “Rec” button again. The device will acknowledge the end of the continuous recording with the opposite sound sequence “high pitched-low pitched”.

If you wish to pause the recording for a moment, you can use the “Play” button. Press “Play” again to continue the recording.

4.1.4.3. Storage location of voice messages

Your Milestone 312 stores voice messages at the current location in your folder structure, either on the internal memory or on the SD memory card. Make sure you have entered the folder you wish the recordings to be stored in. Therefore enter it with “Mode” and you hear the sound sequence “high pitched-low pitched”.

Please note that a Milestone recording creates a file named “M_0001.MP3”. You can insert a new record precisely between 2 existing records. Milestone therefore restructures the numbering of the records. But if you record a voice message in a folder with other file types the record will be stored alphabetically.

Please also note that Milestone 312 plays back voice messages differently from other files. After a music or a text file, the Audio application resumes playback, so it moves to the next file. After a voice message the Audio application stops playback.

Hint: Audio gives you the possibility to set shortcuts for 5 folders, which you may use especially as recording folders. These folders you can enter immediately wherever you are located in Audio. More about this you find under “Creating shortcuts for favorite folders”.

4.1.4.4. Listening to a recorded voice message

To listen to a voice message press “Play” after recording. If you have several messages use the arrow button to select a voice message.

4.1.4.5. Recording with the internal microphone

By default Milestone 312 records over the integrated microphone. It is optimized for voice recordings and filters out background noises. So you can even record in a bus, car or plane. For best results, speak at normal volume and hold the device at a distance of approximately 10 cm (4 inches) from your mouth. The integrated microphone is located in the upper left corner near the small red light. Recordings over the integrated microphone are saved as MP3 files with a quality of 64 kbps.

4.1.4.6. Recording with an external microphone or line-in

In case you plug in an external microphone or an audio cable, as described under “External microphone and line-in”, Milestone 312 switches automatically from internal microphone recording to external recording. The handling is the same as with the internal recording, but the quality increases and you can do adjustments in the Local Settings to improve your recordings. Before you start an external recording, please make sure that the recording source is set appropriately. You can do so through the Local Settings of the Audio application. The first setting is “Recording source”. Make sure it is set to “External microphone” if you wish to record with an external Microphone. The Milestone will use its integrated amplifier and apply voltage to the external microphone jack. Keep in mind that you should only do this with an external microphone and no pre-amplifier. The voltage applied to the Microphone jack can damage external devices if voltage is not required. You can also select “Line-in” if you wish to record directly from an external source, with no voltage on the jack.

To make further adjustments to your recording, please go down in the list of Local Settings. In the next setting “Recording environment” you can choose between one of the preset recording profiles or you choose one of the 3 custom profiles. The custom profiles can be configured manually by customizing the “Recording quality”, “Channels”, “Recording volume” and “Noise filter” settings. For preset profiles, for example “Studio”, the parameters of the mentioned settings are fixed.

Hint: Noise filter cuts background noises and enables voice records in buses and trains.

Hint: External recordings can be monitored through headphones during recording process.

Attention: A connected external microphone or audio cable opens special settings in the Local Settings of Audio. Adjust the setting “Recording source” only to “External microphone” when using an external microphone (without a preamplifier). This adjustment gives power to the jack and could damage devices, which do not need to be powered.

4.1.5. Shortcut overview of Audio

Function	Operation	Acoustic feedback
Playback / Pause	“Play”	-
Go to next file or folder	“Right arrow”	-
Go to previous file or folder	“Left arrow”	-
Go down, enter a folder	“Mode”	“High pitched-low pitched”
Go up, leave a folder	“Rec”	“Low pitched-high pitched”
Fast forward	“Right arrow” (push and hold)	-
Rewind	“Left arrow” (push and hold)	-
Jump to last file	“Right arrow” + “Play”	-
Jump to first file	“Left arrow” + “Play”	-
Short recording	“Rec” (push and hold)	“Click”
Start continuous recording	“Rec” + “Play”	“Low pitched-high pitched”
Pause / continue a continuous recording	“Play” (during continuous recording)	Short beep
End continuous recording	“Rec”	“High pitched-low pitched”
Fast Jump	“Selector” + “Play”.	“Fast Jump”
Erase current file	“Mode” + “Play”	Erasing sound
Erase all files in one direction	“Mode” + “Play” + “Right arrow” or “Left arrow”	Beep for start of erasing and erasing sound for the end
Erase current folder	“Mode” + “Play”, + “Play” again after 3 seconds	Erasing sound
Voice labeling of current folder	“Rec” + “Mode” (push and hold)	Start of record with “Folder” and end with “high pitched-low pitched”
Use shortcut for a folder	“Selector” + “a front button”.	Name of folder / location
Set an Audiomark	“Rec (push and hold)	“Audiomark set” and number of Audiomark

4.2. Books

The application “Books” reads intelligent talking books, for example in DAISY format. The main difference between intelligent and regular audio books is the ability to navigate to chapters, pages and further sectors of the intelligent book. So, this allows you to move around inside a book with a variety of different navigation options. The following formats are possible to use with the application “Books”:

Book type	Description
DAISY 2.02. (text and audio)	DAISY stands for Digital Accessible Information System. It is a format for digital talking books with extensive navigation. The 2.02 version is the most common type of audio DAISY books. More information about DAISY can be found at www.daisy.org .
DAISY 3.0. (text and audio, version 2002 & 2005)	DAISY stands for Digital Accessible Information System. It is a format for digital talking books with extensive navigation. The version 3 is the newest standard. More information about DAISY can be found at www.daisy.org .
EPUB 2.0.1. (text books)	EPUB or Electronic PUblication is an open standard for text based e-books by the International Digital Publishing Forum (IDPF). E.g: Google EPUB books.
Audible Library. AA & AAX	Audible.com is a popular internet provider of spoken audio entertainment, information, and educational programming. More information as well as books and subscription plans can be found at www.audible.com .
NLS Library. Encrypted DAISY 3.0 audio	NLS stands for National Library Service and is a big provider of talking books in the USA.
Bookshare Library. DAISY 3.0 text	Bookshare is a provider of accessible talking books in the USA.

4.2.1. Starting and pausing a book

Make sure you are in the application “Books”. Press the “Play” button to start the reading of a book. A ticking sound signalizes that searching process started. Milestone 312 looks for books on the SD memory card and on the internal memory. It starts the first book it can find. To pause the playback of the book press “Play” again. To select between all available books please have a look under “Selecting a book”.

Attention: Please be aware that DAISY 3.0 and EPUB books require to initialize a book. Milestone does this process in parallel. So you can immediately start reading the book with limited navigation options. The full range of options is added after a short time.

4.2.2. Navigating in a book

Instead of having to listen to a book linearly from beginning to end you have multiple navigation options, though they differ slightly depending on the precise formatting of the book. You can use “Rec” and “Mode” to check what kind of navigation options are available. Press “Rec” to go up in the list and “Mode” to go down in the list.

Let us assume you go to the option “Phrase jump”. Now you can use the arrow buttons to navigate phrase by phrase. So if you press the “Left arrow” you jump back to the start of

the current phrase. If you press it twice you jump at the start of the previous phrase et cetera. If you use the “Right arrow” you jump to the next phrase. If you press it twice you jump forward 2 phrases. So in every option you can use the arrow buttons to navigate or make a selection.

Again, please keep in mind that, which navigation options are available depends on the format of the book and on how accurately it has been marked up by its producers. Here is a list of all available navigation options:

Navigation option	Description
Phrase jump	Jump to next or previous phrase by using the arrow buttons. A phrase is the smallest navigation possibility and for example may correspond to a sentence. The exact definition depends how the book was published.
Time jump	Jump 2 minutes of reading in the desired direction by using the arrow buttons. You can adjust the amount of a time jump in the Local Settings.
Beginning or end of book	Jump to the beginning or to the end of the book by using the arrow buttons.
Bookmarks	Select previously inserted bookmarks by using the arrow buttons.
Bookshelf	Scroll between all available books by pressing the right or the left arrow button. Press “Play” to start a book.
Activate sleep timer	Activate sleep timer by pressing the “Right arrow” button. By pressing the “Left arrow” button sleep timer is deactivated. With sleep timer Milestone 312 will pause playback at the desired time. Afterwards it will wait for 10 minutes. If there is no further input it will turn off automatically. The reading position is saved.
Set time for sleep timer	Select how long Milestone 312 remains active before sleep timer switches it off. Use the arrow buttons to adjust the duration.
Pages jump	Jump to the next or previous page by pressing the arrow buttons. To enter a desired page directly push and hold “Selector” and then enter the page number using the “Left arrow”, “Play” and “Right arrow” buttons. With each push on “Left arrow” you select between the three-digit figures: 100, 200, 300 et cetera., with “Play” you select the two-digit figures 10 to 90 and with “Right arrow” you select between the single-digit figures from 1 to 9. If you wanted to go to page 223 for instance, press the “Selector” button and hold it down, press “Left arrow” twice, press “Play” twice and press “Right arrow” 3 times (223). Release “Selector” button to start reading the desired page.
First level (Chapter)	Jump to the next or previous main chapter by pressing the arrow buttons. For example from chapter 1 to chapter 2.
Second level	Jump to the next or previous sub-chapter by pressing the arrow buttons. For example from chapter 1.2 to chapter 1.3.

Navigation option	Description
Third level	Jump to the next or previous third level sub-chapter with the arrow buttons. For example from chapter 1.2.1 to chapter 1.2.2.
Fourth level	Jump to the next or previous fourth level sub-chapter by pressing the arrow buttons. For example from chapter 1.2.1.1 to chapter 1.2.1.2.
Footnotes	Jump to the next or previous footnote with the arrow buttons.
Marginalia	Jump to the next or previous marginal note by using the arrow buttons. Marginalia are text parts in frames or separate columns.
Producer notes	Jump to next or previous producer note by using the arrow buttons.

4.2.3. Selecting a book

In case you have several books saved on your SD memory card you can rotate between these books with the navigation option “Bookshelf”.

Press “Rec” or “Mode” until you hear “Bookshelf”. With the arrow buttons you can select a book now. All books of the supported formats are listed. Press “Play” to start the desired book. Please be aware that after this selection the device changes automatically to the option “Phrase jump”.

4.2.4. Creating and erasing a bookmark

Press “Rec” for 2 seconds to set a bookmark. Milestone 312 announces “Bookmark set” and the number of the bookmark. You can create a bookmark both during playback as well as in paused mode. Bookmarks are saved directly into the book. The advantage of this, is that bookmarks are always unambiguously assigned to a book, even when working with several books on several memory cards. You may insert up to 120 bookmarks per book. To navigate from one bookmark to another press the “Rec” or “Mode” button until you find the navigation option “Bookmarks”. Now you can use the arrow buttons to jump between the bookmark numbers you have created.

Bookmarks are activated in the order of their appearance in the book, not in the chronological order they were inserted. This has the advantage that when selecting bookmarks you move through the book in the reading direction.

To erase a selected bookmark pause the playback. Push and hold “Mode” and then in addition press “Play”.

4.2.5. Shortcut overview of Books

Function	Operation	Acoustic feedback
Playback / pause	“Play”	-
Go to next part	“Right arrow”	-
Go to previous part	“Left arrow”, if within 3 seconds of start of playback	-
Insert bookmark	“Rec” for minimum 2 seconds	“Bookmark set”
Erase bookmark	“Mode” + “Play”	“Bookmark erased”

Erase all bookmarks	“Mode” + “Play” + “Rec”	“All bookmarks erased”
Go to the next higher navigation option	“Rec”	Name of the navigation option
Go to the next deeper navigation option	“Mode”	Name of the navigation option

4.3. Alarm

The Alarm application is an easy-to-use alarm clock, which makes sure that you get up at the right time every morning and it allows you to check what time it is.

Alarm is structured as a list. You can go up in the list of settings with the “Rec” button and down with the “Mode” button. The desired parameter of a setting you select with the arrow buttons.

4.3.1. Setting the alarm

Make sure you are in the application “Alarm”. To set the alarm use the following settings:

Setting	Description
Alarm on / off	With the arrow buttons you can select whether you want to set the Alarm to “on” or “off”. Please be aware that changing the alarm time automatically activates the alarm. To reach the next lower setting press “Mode”. The previous setting is automatically saved.
Alarm Hour	Choose the hour you would like get up with the arrow buttons. The next settings allows you to select the minutes.
Alarm Minute	Use the arrow buttons to scroll through the amount of minutes, which will be added to the selected hour.
Repeat	Choose between a unique alarm, a daily alarm, an alarm except for weekends or an alarm except for Sundays with the arrow buttons.
Alarm Sound	Choose a wake up sound with the arrow buttons.
Timer (egg timer)	The last setting is a simple timer. It works independently of the other settings. Choose with the “Right arrow” a duration up to 60 minutes. The countdown starts immediately. To stop the timer before it is due, reduce the number of minutes to zero, by using the “Left arrow” button.

If you press “Mode” for 1.5 seconds you reach the Information Service. You get a short report about all the settings of your Alarm.

4.3.2. Turning off the alarm

When the alarm wakes you up stop the ringing by pressing “Play”.

4.3.3. Requesting time and date

To request the time just press “Play”. If you press and hold the button you hear the calendar date after time announcement as well.

Attention: Alarm wakes you up on time if Milestone’s clock is set correctly. You can set the clock in the Basic Settings.

4.3.4. Setting the time and date

Time and date can be changed in the Basic Settings. To get there, push and hold “Mode” for at least 1.5 seconds to open the Information Service. Milestone will start reading out information about the current application. Push “Right arrow” twice to reach the Basic Settings. Here you can use the “Mode” button to move down item by item and adjust the settings for date and time with the arrow buttons. Settings will be saved automatically as you exit the menu.

4.3.5. Shortcut overview of Alarm

Function	Operation	Acoustic feedback
Jump between settings	“Rec” or “Mode”	Name of setting
Select between parameters of an active setting	“Right arrow” or “Left arrow”	Name of parameter
Request time and date	“Play” (push and hold)	Time and date
Stop alarm ringing	“Play”	-

5. Software extras

This chapter describes the software extras that can be purchased for the Milestone 312. Please be aware that these optional applications are not included in the basic version of the Milestone 312. If you wish to purchase and activate one or more of the following software extras please contact your local dealer.

5.1. Speakout

With Speakout you can identify objects. Milestone 312 has an integrated Radio Frequency IDentification (RFID) reader, which identifies a broad variety of RFID tags. These tags are available as stickers, buttons, cards and more.

Attach an RFID tag to the item you wish to identify. Scan the RFID tag and record a voice message for the item. Milestone will play back the voice message you recorded whenever you scan that tag in future.

With this identification system you have endless possibilities. Tag all kinds of bins or boxes to know what is inside. Or even tag your clothes with washable button tags. An overview of all available tags can be found at www.bones.ch.

Attention: Please be aware that the basic version of Milestone 312 may contain a demo version of Speakout. It is limited to handle 3 tags with linked voice records. If you try to label a fourth tag you receive the announcement “Memory full”. You can disable the demo version in the file “CONFIG MILESTONE.TXT”. Find further information under “Customizing via CONFIG MILESTONE.TXT” in this manual.

5.1.1. Associating a voice message with a tag

Make sure you are in the correct application “Speakout”. Keep holding the “Play” button to start scanning for tags. A crackling sound signals the scanning process acoustically. Move with the left long side of Milestone 312 over the tag. Depending on the type of tag Speakout can read distances from 0.5 cm to 4 cm (0.2 - 1.6 inches). We recommend to make physical contact with the tag to guarantee identification and to define clearly which tag is read. If Speakout finds a tag, “New tag found” is announced. Record an appropriate message for the tag. Therefore push and hold “Rec”. You will hear a click sound, which signals that recording has started and you can begin speaking. When you stop pressing “Rec”, the recording ends. If you scan the same tag again by pressing “Play”, your spoken message will appear instead of the acoustic output “New tag found”. Of course you can re-record your messages for a tag as many times as you want to. Messages you record with Speakout are stored on the internal memory in the folder “Speakout”. In the Local Settings of Speakout you have the option to switch the storage location to the external memory.

Attention: Please be aware that stacked tags (one tag on top of another) will not work. Also note that tags do not work on metal objects except for the special metal proof tag.

5.1.2. Shortcut overview of Speakout

Function	Operation	Acoustic feedback
Scanning	“Play” (push and hold)	Crackling sound
Record voice message for tag	“Rec” (push and hold)	“Click”
Listen to a record again	“Play”	Recorded message is played
Erase message for tag	“Mode” + “Play”	Erasing sound

5.2. Radio

The Radio application contains a fully functional FM radio in stereo. It integrates functions as automatic frequency searching, frequency saving, direct frequency input and even radio recording.

Attention: Connect headphones to use Radio. The headphone cable works as an antenna. Without a connected cable in the headphone jack there is no radio signal.

5.2.1. Locating a radio station

Press “Play” to listen to the current frequency. If you press “Play” again the playback stops and the device returns to a mute state. If the adjusted frequency only generates a hissing, push and hold for one second an arrow button to switch to the next radio station.

The “Right arrow” searches for the next radio station with a higher frequency, the “Left arrow” searches for the next one with a lower frequency.

To fine tune, quickly push on one of the arrow buttons. You will move by the smallest possible frequency unit which is 0.1 MHz.

Hint: In the Local Settings of Radio you can change between mono and stereo playback and adjust the seek sensibility.

To listen to Radio over the speaker push and hold “Selector” and then in addition press “Mode”. To return to normal mode pause playback with “Play”. A second push on “Play” will continue playback via headphones.

5.2.1.1. Direct Frequency Function

Instead of jumping from one radio station to the next via arrow buttons, you can also jump directly to a specific frequency. Push and hold “Selector” and then in addition enter the frequency with the “Left arrow”, “Play” and “Right arrow”. With each push on “Left arrow” you jump between 80, 90, 100 MHz. With “Play” you reach the single-digit figures 1 to 9 MHz and with “Right arrow” you select between 0.1 to 0.9 MHz.

For example, to specify the frequency 104.2 MHz: Push and hold “Selector”. Use “Left arrow” until you reach 100 MHz and then push “Play” 4 times to reach 4 MHz. Finally, push the “Right arrow” twice to select 104.2 MHz frequency. To activate the frequency, simply release the “Selector” button.

5.2.2. Saving a radio station and labeling it

If you want to save a radio station, please hold down “Play” for 2 seconds until you hear a beep. The current frequency is now saved. You have twelve memorized stations in total to save your favorite frequencies. Change between these stations with “Rec” or “Mode”.

You can also add a name to each memorized station. To do this, first make sure radio playback is paused. Use the same combination as in the Audio application when voice labeling a folder. Push and hold “Rec” and then in addition push and hold “Mode”. Keep on holding both buttons. Milestone announces the number of the station. After the click, speak the name of the station. When you release the buttons you end the recording, indicated by the sound sequence “high pitched-low pitched”. Next time you enter the memorized station you hear your voice label.

5.2.3. Recording from Radio

Use the same combination as for a continuous recording in the Audio application. Push and hold the “Rec” button and then additionally press “Play”. To stop the recording, press “Rec” once more. The radio signal is recorded as a MP3 with 64 kbps. To listen to the

recording, please switch to the Audio application and open the folder “Radio” on the internal memory. Therein you find the recorded file.

5.2.4. Shortcut overview of Radio

Function	Operation	Acoustic feedback
Playback / pause	“Play”	-
Seek: Jump between radio stations	“Right arrow” or “Left arrow” for 1 second	-
Fine tuning, 0.1 MHz steps	“Right arrow” or “Left arrow”	-
Save frequency	“Play” for 2 seconds	Short beep
Jump between memorized stations	“Rec” or “Mode”	Number or voice message
Voice labeling of current memorized station	“Rec” + “Mode” (push and hold)	Start of record with “low pitched-high pitched” and end with “high pitched-low pitched”
Set direct frequency	Hold “Selector” and combine with “Left arrow”, “Play”, “Right arrow”	Announcement of current frequency input
Record radio signal	Start with “Rec” + “Play” and stop with “Rec” again	Start of record with “low pitched-high pitched” and end with “high pitched-low pitched”

5.3. Agenda

Agenda is a powerful appointment calendar to organize your daily life. When selecting the Agenda application with the “Selector” button your Milestone 312 jumps automatically to the first setting “Day”. Agenda has a menu structure similar to that of Books and Alarm. The structure is a vertical list of settings that can be navigated with “Rec” and “Mode” buttons, and the arrow buttons can be used to select the parameters for each of the settings.

In this application, the “Play” button can be used to preview your settings and to create an event. You will find an example of entering a birthday into Agenda at the end of this chapter.

5.3.1. Getting day and time information

Before creating a new event you may need information about the present day and time. To do this, press the “Mode” button and hold it down for at least 1.5 seconds to start the Information Service. There you will get today’s weekday, date, time and calendar week. Exit with the “Selector” button.

5.3.2. Configuring and managing events

The following settings and associated parameters can be used to manage your events. The first 8 settings include parameters to configure your events. The following two items list up your events. With the last setting you can mute the Agenda.

Setting	Description
Day	Select the day for your event with the arrow buttons. To complete the date for your event please also use the two following settings “Month” and “Year”.
Month	Select the month for your event with the arrow buttons.
Year	Select the year for your event with the arrow buttons.
Hour	Select the hour for your event with the arrow buttons. With the following setting “Minute” you can complete the time for your event.
Minute	Select the minute for your event with the arrow buttons.
Event	<p>Select an event type with the arrow buttons:</p> <p>Beep sound - Gives a beep at preset time and date. Without interruption, this reminder lasts for 2 minutes.</p> <p>Voice message playback - Plays your voice record at preset time and date and repeats it during 2 minutes. In order to do this, create a voice message. Push and hold the “Rec” button. After you hear a click speak your message. For example “Appointment with the dentist in Zürich. Do not forget to clean your teeth”. To finish the recording release “Rec”. If you do not like your record just create a new one. The previous one is automatically erased.</p> <p>Voice record without playback - Is the same as “Voice message playback” but without an announcement at the preset time. Event so marked only appears in “List by date” and “List by repetition”.</p> <p>Audio playback - Plays the files of a special folder once at preset time and date. Agenda takes the files, which are located in the subfolder “playback” of the folder “Agenda” on the internal memory. If you store more than one file in this folder Milestone plays in alphabetical order.</p> <p>Radio playback - Plays the radio signal at preset time and date. Agenda plays from the frequency which is set in the application “Radio”.</p> <p>Radio recording - Records the radio signal at the preset time and date. Milestone 312 records from the frequency, which is set in the application “Radio”. The recording is saved as MP3 file in the folder “Radio” on the internal memory.</p> <p>Microphone recording - Records from the internal or an external microphone at preset time and date. The recording is saved as MP3 file in the subfolder “records” inside the folder “Agenda” on the internal memory.</p>
Repeat	Select between “Once”, “Daily”, “Monday to Friday”, “Weekly”, “Monthly” and “Yearly”.
Duration	<p>Add a time frame to an event with the arrow buttons. For the events “Beep sound”, “Voice message playback” and “Voice message without playback” you can add the duration as additional information in “List by date” and “List by repetition”. So if a meeting lasts 50 minutes you can add this information.</p> <p>The other events with an executive characteristic: “Audio playback”, “Radio playback”, “Radio recording” and “Microphone recording” you can limit with “Duration”. For example, set the time of “Duration” to 45 minutes to record a 45 minutes report on the radio.</p>

Setting	Description
List by date	“List by date” gives you an overview of all events chronologically ordered and starting on a date and time you specify. You define its starting point with the settings “Day”, “Month”, “Year”, “Hour” and “Minutes”. If you go to “List by date” you hear first the presets of these settings. For example “June 21, 2011, 5 o’clock in the afternoon”. This is your starting point. Go to the next event with “Right arrow”. To go back use “Left arrow”.
List by repetition	Be aware that the name of this setting always depends on what is preset in the setting “Repeat”. If you choose for example “Yearly” the name is “List yearly events”. When using the arrow buttons you switch between all events, which appear yearly.
Reminder	Select “off” to make sure events do not trigger a reminder, recording or playback. This is important if you do not want your Milestone to disturb you, for example during a meeting. With “on” you allow the Milestone to play reminders, recordings and playback at any time also during playback of a book, radio et cetera.

Attention: Please make sure that your Milestone’s date and time are configured correctly. You can do that in the menu under Basic Settings .

Please note that when an event starts at a preset time and date the Milestone 312 may automatically change the active application. For example if the event “Radio recording” starts, Milestone switches from Agenda to Radio. Be aware that Radio based events do need the Software extra “Radio” and do not forget to connect headphones when creating Radio based events

If there are several events at the same time you receive a reminder for each event. Also for events with playback and recording tasks you receive a reminder but they are not automatically executed. The users have to decide whether they want to do a recording or a playback manually after the reminder.

Finally, please note that when the Milestone 312 is connected to a computer, Agenda is not active.

5.3.3. Previewing and creating an event

When the settings for your event are finalized, create the event by pushing “Play” for 2 seconds. It does not matter where you are located in Agenda. The Milestone will confirm the event with the announcement “Event added”. To get an overview of the settings before creating an event just tap “Play”.

5.3.4. Erasing an event

To erase an event, go to “List by date” or “List by repetition” and select the event you would like to erase. It is possible to erase an event both during playback and afterwards. Push and hold the “Mode” button and in addition press “Play” to erase it. You can use this shortcut as well after you have created an event in any setting.

To erase all the events of Agenda, please connect your Milestone 312 to your computer. Erase the subfolder “events”, which is located in the folder “Agenda” on the internal memory.

Hint: Please be aware that in the Local Settings of Agenda you can use a function that erases all one-time events older than one month by pressing the “Right arrow”.

5.3.5. Stopping reminder

At the preset time and date when an event starts, you can stop its reminder or playback by pressing “Play”. You can stop a recording event by pressing “Rec”.

5.3.6. Example of creating an event

For this example, let us assume you want to enter a reminder for a friend's birthday, the 5th of May. To set the event date, start with the first setting “Day”. Use the arrow buttons to locate the 5th of the preset month. If the day is correct press “Mode” to go down to the next setting.

Here you select the month, in our case that would be May, use the arrow buttons to find it. To complete the date you usually press “Mode” to select the year. For our birthday we do not need a specific year since it appears every year. Also the following two settings to set the time, “Hour” and “Minute”, are not required for our birthday event. So just accept their presets and go to the setting “Event” by pressing “Mode” several times.

Select an event type with the arrow buttons. Choose “Voice record playback”. Now push and hold the “Rec” and record your voice message after the click sound. Say for example: “Birthday of my good friend Jim”. Release “Rec” to stop recording. Press “Mode” to go to the next setting “Repeat”. Since our event is a birthday we need to select “Yearly”. By selecting this option we make sure that this birthday reminder appears every year. More settings are not needed. Control all your inputs by pressing “Play”. A preview of the event is announced. If everything is correct save the event. To do this, push and hold “Play” for 2 seconds. Milestone 312 says “Event added”.

Next time, on the 5th of May, your Milestone will announce your voice record to remind you about Jim’s birthday. Stop the reminder by pressing “Play”.

5.3.7. Shortcut overview of Agenda

Function	Operation	Acoustic feedback
Jump between settings	“Rec” or “Mode”	Name of setting
Select between parameters of a setting	“Right arrow” or “Left arrow”	Name of parameter
Recording for event “Voice message playback” and “Voice message without playback”	“Rec” (push and hold)	“Click”
Event preview	“Play”	Information about all settings
Create an event	“Play” for 2 seconds	“Event is added”
Erase an event	“Mode” and “Play”	Erasing sound
Stop reminder	“Play”	-

6. Further information

6.1. Technical data

- Internal memory: 1 GB, - 0.74 GB accessible for user.
- External memory: Depending on the SD card, maximum 32 GB.
- Voice recording capacity (on internal memory): 26 hours.
- Voice recording capacity (on external memory): 32 GB or 46 days.
- Bit rate during recording over built-in microphone: 64 kbps.
- Bit rate during recording over external microphone: 256 kbps by default.
- Sampling rate during recordings: 44.1 kHz.
- Sample resolution during recording: 16 bit.
- Bit rate for playback: 8 kbps to 320 kbps, or VBR (Virtual Bit Rate).
- USB 2.0 Hi-Speed connection.
- Memory card slot MMC, SD and SDHC, maximum card size 32 GB.
- Headphone jack: Standard 3.5 mm.
- External Microphone jack: 3.5 mm.
- Body made of impact-resistant plastic.
- Measurements: 85 x 54 x 14 mm (3.35" x 2.13" x 0.55").
- Weight: 53 grams (1.9 ounces).
- Built-in rechargeable lithium polymer battery.
- Maximum run time: Over 15 hours (depends strongly on the kind of usage).
- Maximum charging: 3 hours.
- Speakout, RFID reader: 13.56 MHz reading frequency, standard ISO15693.

6.2. Advice

6.2.1. SD memory cards

6.2.1.1. Recommended manufacturers

We recommend branded SD cards from SanDisk, Kingston, Transcend and Toshiba for trouble free usage.

6.2.1.2. Protecting content on a SD card

Important content on a SD card you can protect by using the little switch for erase protection that memory cards are equipped with. Lock position is on the opposite side of the interface. The interface side you recognize by the angled corner of the card. Milestone 312 recognizes and honors this setting. Erasing is not possible anymore.

6.2.2. Customize via CONFIG MILESTONE.TXT

In the root directory of your Milestone 31's internal memory you will find the file "CONFIG MILESTONE.TXT". Through this file you can activate and deactivate applications and edit advanced settings. For example in the setting "enable_device speakout" replace the parameter "yes" by "no". Thus, the application Speakout is deactivated.

If you delete this file, the device goes back to its default state again and all your settings are lost.

6.2.3. Protecting Milestone

Please protect your Milestone 312 from mechanical overload and from contact with water. Absolutely do not try to create underwater recordings with the Milestone 312. All parts of the warranty are voided by inappropriate use, mechanical overload or opening of the device.

6.2.4. Creating a data backup

A backup saves the content of your Milestone 312 on a computer. Backing up the device content gives you peace of mind in case your Milestone gets stolen, you lose your M312 or if it has a technical defect. To create a backup, please connect your Milestone 312 to your computer (described under “USB connection to the computer” in this manual) and copy all folders from the M312 to your computer. Make sure to repeat this process from time to time as a precaution.

6.2.5. Nothing works anymore

Don't panic! Relax and avoid damaging your M312 in frustration, there may be easy ways to correct this problem. Try the following steps:

Step 1:

Is the device charged? Connect your Milestone 312 to a power outlet and ensure that the charger is powered. Recharge the built-in battery for at least half an hour. Afterwards press “Play” and hold it down for at least half a second. If Milestone 312 does not speak go to step 2.

Step 2:

Is the keyboard locked? While keeping the “Mode” button pressed, press the “Rec” button briefly and listen for a response.

- You hear the message “Keyboard active”: Keyboard was locked and is now unlocked.
- You hear the message “Keyboard locked”: Keyboard has now just been locked. Press the same combination of buttons once more to unlock the keyboard. The device will play the message “Keyboard active”.
- If you hear nothing go to step 3.

Step 3:

If you do not hear anything, the device is not functioning properly. Please press and hold all front buttons except “Play”. This resets the device. If it is still not working you can try to reinstall the software as described in the following chapter or contact your dealer.

6.3. Service and support

6.3.1. General information

Service and support is provided through your dealer, where you bought your Milestone. Your dealer knows the device well and will be able to assist you with general product questions, usage questions or repair cases. In addition you can visit www.bones.ch for information about Milestone.

6.3.2. Software updates

We at Bones AG are working to improve the Milestone 312 continuously based on the feedback we receive from our users and our dealers. Your comments are always very welcome.

Firmware updates enable you to fix issues with your Milestone 312 and add new functionality. If you would like to update to the newest firmware, you have two options. Either you go to your dealer, where you bought the device. He will update your Milestone 312 if the software is out-of-date. Or you can do it on your own over the internet. To update the firmware yourself please follow the steps below.

- Check which firmware is on your M312: Under “Basic Settings” in the menu you find the appropriate announcement to the firmware version.
- Check which is the newest available firmware: Open your internet and go to www.bones.ch. Under “Support” select your product “Milestone 312”. There you find the newest firmware, for example 3.50. If this version is higher than the one on Milestone 312, please download the file to your desktop.
- Copy the newest firmware to M312’s external memory (SD card): To do this, please connect Milestone 312 to your computer. If you do not know how, please go to “USB connection to the computer” in this manual. Copy the firmware into the root directory of the plugged in SD card and log off your M312 properly from the computer as you would do with a memory stick. You will hear the announcement “Software update in progress. Please wait”.

6.4. About Bones AG

Bones is a Swiss engineering company specializing in the production of aids for blind and visually impaired people. To make sure our products are high quality and relevant to our user’s needs we work closely with several organizations for blind people as well as individuals all over the world.

In addition to developing and marketing the Milestone line of portable media players, Bones has a second important technology called Personal Assistant for Visually Impaired People (PAVIP). PAVIP is a platform to increase autonomy and mobility of the visually impaired. It is more than a group of products. It is an end-to-end solution to reduce obstacles that visually impaired people are faced with every day. And it is a way to increase accessibility of various aspects of daily life. PAVIP addresses all the aspects of product development, from the actual development of end user products and the infrastructure they need to interact with to the development of end user training.

PAVIP is developed as an alliance between many organizations. It is carried by the Swiss Federation of the Blind and Visually Impaired (SFB), Swiss National Association of and for the Blind (SNAB), Swiss Library for the Blind (SBS), Federal Office of Transport (FOT), Public Transportation Authorities of the City of St.Gallen (VBSG) and the Engineering Office Bones AG.

Please visit our web site www.bones.ch to receive more information.